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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,025	10/28/2003	Masao Fukuyama	50427-761	3679

7590 09/14/2005

McDermott, Will & Emery  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER

PERALTA, GINETTE

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/694,025

Applicant(s)

FUKUYAMA ET AL.

Examiner

Ginette Peralta

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11, 12 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/740,858.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/18/04.
- ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 0905.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

DETAILED ACTION

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Norman et al. (U. S. Pat. 5,424,560).

Regarding claim 11, Norman et al. discloses in Fig. 6 an organic electroluminescent device that comprises a pair of electrodes (13 and one of 35,40) and a layer structure provided between the paired electrodes and including an emission layer (15 or 20) and at least one organic layer (20 or 25) in contact with the emission layer (15 or 20), wherein the organic layer (20 or 25) comprises a fluorescent material (col. 5, lines 61-66) having an absorption peak wavelength shorter than a peak wavelength of luminescence emitted from the emission layer (15 or 20), as disclosed in col. 4, lines 4-36.

Regarding claim 12, Norman et al. discloses that the at least one organic layer (20 or 25) includes two organic sub-layers wherein the fluorescent material is present in one of the sub-layers not in contact with the emission layer, as disclosed in col. 3, lines 46-50, col. 3, lines 59-63, where it is disclosed that the organic layers 20 and 25 may comprise one or more organic layers, and in col. 5, lines 61-65, where it is disclosed that the

fluorescent material may be present as a dopant in one of the organic layers or as a sub-layer in the organic layer stack.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al..

Regarding claim 19, Norman et al. discloses the claimed invention including that the fluorescent material is present in one of the sub-layers as disclosed in col. 3, lines 46-50, col. 3, lines 59-63, where it is disclosed that the organic layers 20 and 25 may comprise one or more organic layers, and in col. 5, lines 61-65, where it is disclosed that the fluorescent material may be present as a dopant in one of the organic layers or as a sub-layer in the organic layer stack.

Norman et al. discloses the claimed invention with the exception of disclosing the amount of fluorescent material in the at least one layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the fluorescent material content in the organic layers 20 and 25 in order to obtain a desired luminescence as there is no statement denoting the

criticality of the content of fluorescent material, and Norman et al. discloses that it is present in the organic layers or as a separate layer.

"In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (The prior art taught carbon monoxide concentrations of "about 1-5%" while the claim was limited to "more than 5%." The court held that "about 1-5%" allowed for concentrations slightly above 5% thus the ranges overlapped.)" (MPEP 2144.04)

### *Response to Arguments*

5. Applicant's arguments filed 1/7/05 have been fully considered but they are not persuasive.

Regarding applicant's argument that as is apparent from the teachings of Norman et al., the fluorescent is used as a single organic layer or as a dopant to an organic charge transporting layer, and that Norman et al. do not disclose a combination of an emission layer and at least one organic layer in contact with the emission layer wherein the organic layer comprises a fluorescent material having an absorption peak wavelength shorter than a peak wavelength of luminescence emitted from the emission layer, as required by claim 11, it is noted that in the pixel section of Fig. 6 where electrode 40 overlies organic layers 25 and 20, organic layers 25 and 20 overlie and are in contact with emission layer 15, and emission layer 15 overlies electrode 13, that organic layers 20 and 25 comprise a material having an absorption peak wavelength shorter

than a peak wavelength of the luminescence emitted from the emission layer 15 as disclosed in col. 4, lines 25-34 where the layer 15 emits a red light, and organic layers 20 and 25 emit blue and green light which have a shorter wavelength and a poor absorption spectrum for the longer wavelengths of the emission layer 15.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginette Peralta whose telephone number is (571)272-1713. The examiner can normally be reached on Monday to Friday 8:00 AM- 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571)272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GP

A handwritten signature in black ink, appearing to read 'Hoai Pham', with a long horizontal flourish extending to the right.

HOAI PHAM  
PRIMARY EXAMINER